

$^9\text{Be}(^{112}\text{Sn},\text{X}\gamma)$ 2012Lo08

Type	Author	History	Citation	Literature Cutoff Date
Full Evaluation	E. Browne, J. K. Tuli		NDS 145, 25 (2017)	1-Jul-2017

^{99}In produced from fragmentation of a ^{112}Sn beam at $E=120$ MeV/nucleon on a 195 mg/cm 2 ^9Be target at the National Superconducting Cyclotron Laboratory (NSCL). Fragments separated by the A1900 Fragment Separator and the Radio Frequency Fragment Separator (RFFS). Ions were implanted in the double-sided silicon strip detector (DSSD). Detection system: NSCL Beta Counting System in conjunction with the SeGA Array of 16 HPGe detectors. Measured $E\gamma$, $I\gamma$, β spectra, $E(p)$, $I(p)$, $\beta\gamma$ -coin, βp -coin, $\gamma\beta p$ -coin, half-life, β -delayed proton emission probability.

Total of 183 βp coin events identified.

 ^{99}In Levels

E(level)	$T_{1/2}$	Comments
0	3.1 s \pm 2	$\% \beta^+ p = 0.94$ (2012Lo08) $T_{1/2}$: measured by 2012Lo08 from decay curves of time correlations between implantations and decay radiation. Decay curves were fitted with Poisson distribution using log-likelihood function by consideration of decay of parent, daughter and grand-daughter. Value is from β -decay data. $T_{1/2} = 3.05$ s \pm 60 is also listed which may be from $\beta^+ p$ decay curve. J^π : $9/2^+$ from syst (2017Au03). $\% \beta^+ p$: Measured by 2012Lo08 based on observation of 183 βp coincidence events.